

KOLAR, Ya., [Kolar, J.], dotsent; BABITSKIY, A., [Babicky, A.], kand.
biolog. nauk; KASLOVA, Ya., [Kaslova, J.], kand. med. nauk;
KASL, Ya., [Kasl, J.], kand. med. nauk

Effect of ultrasonic waves on the mineral metabolism of the
bones. Ortop., travm. i protez. 26 no.8:43-51 Ag '65.

(MIRA 18:9)

1. Iz radiologicheskoy kliniki Karlova universiteta, izotopnykh
laboratoriy biologicheskikh institutov Chekhoslovatskoy akademii
nauk i Odontologicheskogo instituta, Praga. Adres Kolara: Praga 2,
Radiologicheskaya klinika, vo 2-oy bol'nitse.

BABITSKIY, A.B., agronom; BESMAN, I.I., kand. sel'skokhozyaystvennykh nauk.

Experience in introducing crop rotations on the Stalin Collective Farm in Minsk Provinces. Zemledelie 7 no.11:31-35 N '59 (MIRA 13:3)

1. Kolkhoz imeni Stalina, Dzerzhinskogo rayona, Minskoy oblasti.
(Minsk Province--Rotation of crops)

1. BABITSKIY, B. A
2. USSR (600)
4. Machine-Tractor Stations
7. Consolidated requirements, norms for work and fuel consumption in tractor operations, Sot. sel'khoz, 23, No. 12, 1952.
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

1. BABITSKIY, B. A.
2. USSR (600)
4. Machine-Tractor Stations
7. Introducing progressive production methods for tractor work in machine-tractor stations, Dost. sel'khoz., no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

RABITSKIY, B.A., kandidat sel'skokhozyaystvennykh nauk.

Differentiated work norms for tractor operators. Nauka i pered.sp.
v sel'khoz, 6 no.12:37-39 D '56. (MLRA 10:1)
(Machine-tractor stations--Production standards)

BaBITSKIY, B.D.

Synthesis and study of the properties of 1,4-polybutadiene. B. D. Babitskiy, P. A. Dolgoplosk, and V. A. Krol. *Khim. Volokna i Tkan.* 2, 392-3 (1957). A mixt. of Et_3Al and TiCl_4 (0.2-0.5 wt.-% butadiene) and 20-25 vol.-% C_6H_6 soln. of the monomer reacted in an autoclave provided with a stirrer. The vitrification temp. of the polymer varied between -100 and -103° . It contained up to 99% 1,4-links. The presence of trans-1,4 links did not affect the vitrification temp.

I. Benicowitz

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11/2 May
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L 3204-66 EWT(m)/EPT(c)/EWP(j)/I RM

ACCESSION NR: AP5016306

UR/0190/64/006/012/2202/2202

AUTHOR: Babitskiy, B. D.; Dogop'losk, B. A.; Kozmer, V. A.; Lobach, M. I.; Tiryakova, Ye. I.; Chesnokova, N. N.; Yakovlev, V. A.

TITLE: Stereospecific polymerization of butadiene in the presence of pi-allylic complexes

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 6, no. 12, 1964, 2202

TOPIC TAGS: polymerization, butadiene, catalysis, macromolecular chemistry

Abstract: It was shown that the polymerization of butadiene in benzene solutions under the influence of catalytic systems based on pi-allylic complexes of nickel and metal halides ($TiCl_4$, VCl_4 , WCl_6 , $AlBr_3$, and $NiCl_2$) leads to the formation of a polymer with predominantly (up to 94%) cis-1,4-units. The stereospecificity of these catalysts does not depend on the nature of the metal in the Lewis acid. The polymerization temperature was 20-50° and the time 8-15 hours.

ASSOCIATION: none

SUBMITTED: 13 Jul 64

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: OC, GC

JPRS

Card 1/1

BABITSKIY, B.D.; KORMER, V.A.; LOBACH, M.I.; CHESNOKOVA, N.N.

Role of π -complexes in the coordination-ionic polymerization
of butadiene. Dokl. AN SSSR 160 no.3:591-593 Ja '65.

(MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V. Lebedeva. Submitted July 13, 1964.

L 57011-65 EBT(m)/KPP(e)/LMP(j)/T Pc-1/Pr-1 RM

ACCESSION NR: AP5010579

UR/0020/65/161/003/0583/0585

AUTHORS: Babitskiy, B. D.; Dolgoplosk, B. A. (Academician); Kormar, V. A.; Lobach, M. I.; Tiryakova, Ye. I.; Inkovlov, V. A.

TITLE: Stereospecific polymerization of butadiene by catalytic systems based on the π -allyl nickel complexes

SOURCE: AN SSSR. Doklady, v. 161, no. 3, 1965, 583-585

TOPIC TAGS: polymerization, butadiene, stereospecificity, nickel organic compound, catalyst

ABSTRACT: The stereospecific catalytic effect of bis-(π -crotyl) complexes of nickel in the polymerization of butadiene was investigated and compared with the effect of π -allyl-Ni complexes. The catalyst was obtained by treating bis-(π -crotyl)-Ni with Ni-halides in a ratio of 1:2. It was found that the catalysts cause the formation of 1-4 polybutadiene, consisting mainly (up to 95%) of cis-1,4-rings, and that the more effective catalysts form in the presence of TiCl_4 . The bis-(π -allyl)-nickel-bromide catalyst caused the formation of polymers in which the number of cis-rings is equal to that of trans-rings, with the formation of 1, 2-rings being negligible. Addition of metal halides to bis-(π -allyl)-nickel-bromide and to bis-(π -crotyl)-

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L 57011-65

ACCESSION NR: AP5010579

nickel-chloride increased the catalytic activity and altered the stereospecificity. All of the polybutadienes formed contained up to 92% cis-1, 4-rings. The structure of the polymer was practically independent of the nature of the metal halide. Orig. art. has: 3 tables and 1 formula.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Union Research Institute for Synthetic Rubber); Institut neftekhimicheskogo sinteza im. I. V. Topchiyeva, Akademii nauk SSSR (Institute for Petrochemical Synthesis, Academy of Sciences, USSR)

SUBMITTED: 30Nov64

ENCL: 00

SUB CODE: 0C

NO REF SOV: 001

OTHER: 003

lmm
Card 2/2

L 52264-65 EPF(c)/ENP(j)/EWT(m)/T Pc-L/Pr-L ESD RM
 ACCESSION NR: AP5010832 UR/0020/65/161/004/0836/0838

AUTHOR: Babitskiy, B. D.; Golenko, T. G.; Kormer, V. A.; Skoblikova, V. I.;
 Tinyakova, Ye. I.; Dolgoplosk, B. A. (Academician)

TITLE: Stereospecific polymerization of butadiene in the presence of catalyst
 systems based on π -cyclopentadienyl complexes of nickel

SOURCE: AN SSSR. Doklady, v. 161, no. 4, 1965, 836-838

TOPIC TAGS: stereospecific polymerization, polymerization, butadiene polymeriza-
 tion, butadiene, pi-complex

ABSTRACT: Polymerization of dienes was studied with catalyst systems composed of
 π -cyclopentadienyl Ni-complexes and Lewis acids. These systems represent a new
 group of stereospecific polymerization catalysts as they do not contain compounds
 with a σ -metal-hydrocarbon bond. Benzene solutions of bis- π -cyclopentadienyl
 Ni-complex and π -cyclopentadienyl- π -cyclopentenyl Ni-complexes along with metal
 halides are effective catalysts for polymerization of butadiene. The solutions of
 Ni-complexes and of metal halides were prepared separately and were mixed together
 in an argon atmosphere. Polymerization experiments were carried out at 50°C and

Card 1/3

L 52264-65

ACCESSION NR: AP5010832

the test duration was 17 hours. Butadiene concentration in the total solution was 2.5 mol/l and concentration of metal halides was 5×10^{-3} mol/l. Polymers were precipitated with HCl acidified ethyl alcohol. The yield and molecular weight of the polymers is a function of the type of Lewis acid used and the ratio between individual components of the catalyst system. A $(\pi\text{-C}_2\text{H}_5)_2\text{Ni-TiCl}_4$ catalyst system yielded a polymer containing about 90% cis-1,4 groups, 5 to 10% trans-1,4 groups, and no side vinyl groups. Highest polymer yields were obtained with a Ni:Ti ratio of 1. The polymer molecular weight was not higher than 100,000. The $(\pi\text{-C}_2\text{H}_5)_2\text{Ni-VCl}_4$ catalyst system yields polybutadiene containing up to 96% cis-1,4 groups. Maximum catalytic activity results from a Ni:V ratio of 1, the molecular weight of the polymer is 400,000 to 500,000. The catalyst based on tin-, molybdenum-, and tungsten halides yield polymers with 20 to 50% trans-1,4 groups. Depending upon reaction conditions, $(\pi\text{-C}_5\text{H}_5)_2\text{Ni-AlX}_3$ catalysts (where X is Cl or Br) yield polybutadiene of 20,000 to 50,000 molecular weight. Catalysts based on π -cyclopentadienyl- π -cyclopentenyl Ni-complexes perform similarly to bis- π -cyclopentadienyl based systems; both yield polybutadiene containing 92-95% cis-1,4 groups. "The authors are highly indebted to I. G. Kolokoltseva for synthesis of the bis- π -cyclopentadienyl Ni-complex." Orig. art. has: 2 tables.

Card 2/3

L 52264-65

ACCESSION NR: AP5010832

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka im. S. V. Lebedeva (All-Soviet Institute of Synthetic Rubber); Institut neftekhimicheskogo sinteza akademii nauk SSSR (Institute of Petrochemical Synthesis, Academy of Sciences SSSR)

SUBMITTED: 21Dec64

ENCL: 00

SUB CODE: GC, MT

NO REF SOV: 002

OTHER: 002

Card - 3/3

BABITSKIY, B.D.; KORMER, V.A.; PODDUBNYI, I.Ya.; SOKOLOV, V.N.; CHESNOKOVA,
N.N.

Tracer method study of the stereospecific polymerization of butadiene
in an aqueous medium in the presence of rhodium chloride. Dokl. AN
SSSR 162 no.5:1060-1062 Je '65. (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V.Lebedeva. Submitted November 30, 1964.

DAVID V.P.

Polymerization of butadiene by catalysts based on carbonyl metals of group VI of the periodic system of elements. Dokl. AN SSSR 365 no.1:95-93 N 195. (MIRA 18:10)

I. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kachstva in. S.V.S. below. Submitted March 20, 1965.

BABITSKIY, B.D.; DOLGOPIOSK, B.A.; KORMER, V.A.; LOBACH, M.I.; TINYAKOVA,
Ye.I.; YAKOVLEV, V.A.

Influence of the nature of halogen atom on the stereospecificity
of π -allyl complexes of nickel in butadiene polymerization.
Izv. AN SSSR. Ser. khim. no.8:1507 '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo
kauchuka im. S.V. Lebedeva i Institut neftekhimicheskogo sinteza
im. A.V. Topchiyeva AN SSSR.

L 7648-66 EWT(m)/EPF(c)/EWP(j) RM
ACG NR: AF5025036 SOURCE CODE: UR/0286/65/000/016/0084/0084
AUTHORS: Babitskiy, B. D.; Kormer, V. A.; Lapuk, I. M.; Lobach, M. I.; Chesnokova, N. N.
ORG: none
TITLE: Method for obtaining cis-1,4-polybutadiene rubber. Class 39, No. 173948
[announced by All-Union Scientific Research Institute for Synthetic Rubber im.
academician S. V. Lebedev (Vsesoyuznyy nauchno-issledovatel'skiy institut
sinteticheskogo kauchuka)]
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 84
TOPIC TAGS: rubber, butadiene, polymer, polybutadiene rubber, catalyst, polymer-
ization
ABSTRACT: This Author Certificate presents a method for obtaining cis-1,4-
polybutadiene rubber by thermal polymerization of butadiene in the presence of a
catalyst. The catalyst consists of tetranickelcarbonyl and metal-containing
compounds. The metal-containing compounds used are transition metal salts of group
V or VI soluble in hydrocarbons, for instance, vanadium tetrachloride, vanadium
Card 1/2 UDC: 678.762.2

L 7648-66

ACC NR: AP5025036

oxytrichloride, or hexachlorotungsten.

SUB CODE: 11/

SUBM DATE: 18Apr64

Card 2/2

DOLGOPLOSK, B.A., akademik; BABITSKIY, B.D.; KORMER, V.A.; LOBACH, M.I.;
TINYAKOVA, Ye.I.

Link formation mechanism in the stereospecific polymerization
of dienes. Dokl. AN SSSR 164 no.6:1300-1302 0 '65.

(MIRA 18:10)

1. Institut neftekhimicheskogo sinteza AN SSSR i Vsesoyuznyy
nauchno-issledovatel'skiy institut sinteticheskogo kauchuka
im. S.V.Lebedeva.

L 13473-66 EMT(m)/ENP(j)/T RM
 ACC NR: AP5027842 SOURCE CODE: UR/0020/65/165/001/0095/0098
 440
 13
 AUTHORS: Babitskiy, B. D.; Kormer, V. A.; Lapuk, I. M.
 ORG: All-Union Scientific Research Institute for Synthetic Rubber im. S. V. Lebedev
 (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kauchuka)
 TITLE: Polymerization of butadiene by catalysts based on the metal-carbonyls of group
 VIII metals in periodic table of elements
 SOURCE: AN SSSR. Doklady, v. 165, no. 1, 1965, 95-98
 TOPIC TAGS: polymer, polymerization, catalytic polymerization, butadiene, nickel
 compound, cobalt compound
 ABSTRACT: The effect of nickel and cobalt carbonyls $Ni(CO)_4$, $Co_2(CO)_8$, $(C_5H_5NiCo)_2$ on
 the polymerization of butadiene in the presence of different Lewis acids and of
 AlX_3 , $AlBr_3$, $TiCl_4$, $TiBr_4$, TiI_4 , VCX_4 , $VOCl_3$, $MoCl_5$, and WCl_5 was studied. The
 polymerization was carried out in benzene or heptane solutions at a temperature of 50°C
 over a period of 17 hours. The yield of polymer and its microstructure in terms of
 the fractions of cis- and trans-butadiene monomers in the chain are tabulated. It
 was found that the catalytic activity of the metal carbonyls and the stoichiometry of
 the reaction depend on the nature of the Lewis acid. A suggestion is made that the
 catalytic systems studied here are related to π -allyl and π -cyclopentadienyl nickel
 UDC: 66.095.26+678.762
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L 13473-66

ACC NR: AP5027842

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complex systems previously described by B. D. Babitskiy, T. G. Golenko i dr. (DAN, 161, 4, 1965). The authors thank I. A. Zarovaya for participating in this investigation. This paper was presented by academician B. A. Dolgoploskiy on 29 March 1965. Orig. art. has: 1 table and 2 equations.

SUB CODE: 11/

SUBM DATE: 23Mar65/

SOV REF: 003/

OTH REF: 012

Card 2/2

L 05129-67 EWP(j)/EWT(m) LJP(c) RM

ACC NR: AF6027734

(A)

SOURCE CODE: UR/0020/66/169/004/0832/0834

AUTHOR: Babitskiy, B. D.; Grechanovskiy, V. A.; Poddubnyy, I. Ya.; Smirnova, I. N.;
Dolgoplosk, B. A.

ORG: none

TITLE: Some regularities in the change of the molecular weight distribution of cis-1,4
polybutadienes obtained under the influence of Ziegler-Natta catalysts

SOURCE: AN SSSR. Doklady, v. 169, no. 4, 1966, 832-834

TOPIC TAGS: polybutadiene, catalytic polymerization, molecular weight, titanium com-
pound, organoaluminum compound

ABSTRACT: The complex Ziegler-Natta catalyst $TiI_4 + Al(iso-C_4H_9)_3$ was used to synthesize cis-1,4-polybutadienes. The effect of the degree of conversion of the monomer, concentration of the catalyst $TiI_4 + Al(iso-C_4H_9)_3$ and polymerization temperature on the molecular weight and molecular weight distribution (MWD) of the polymers formed was studied. The MWD was determined from sedimentation rates in a "Phywe" centrifuge. Samples obtained at various stages of polymerization at 25°C showed that independently of the degree of conversion of the monomer, beginning with the smallest experimentally measurable degree of conversion (~15%), the MWD of the polymers does not change, i. e., the process is a steady one. The catalyst and monomer concentrations do not affect the steadiness of the process. The latter is affected, however, by a

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UDC: 66.095.265+678.744

L 05129-67

ACC NR: AP6027734

drop in the polymerization temperature to 15°C, and in this case the molecular weight increases with the degree of conversion. The molecular weight of cis-1,4-polybutadienes increases with the initial concentration of the monomer and with decreasing initial concentration of the catalyst. As the temperature drops, the nature of the change in molecular weight as a function of these two concentrations remains the same. It is concluded that the polymerization of butadiene over $TiI_4 + Al(iso-C_4H_9)_3$ at 15°C and below involves the "live"-chain mechanism, whereas at higher temperatures an increasingly important role is played by chain-limiting reactions. Orig. art. has: 4 figures.

SUB CODE: 07/ SUBM DATE: 13Jan66/ ORIG REF: 004/ OTH REF: 004

Card 2/2

L 23110-66 EWT(m)/EMP(j)/T IJF(c) RM

ACC NR: AP6009488

UR/0020/66/167/001/0099/0101

AUTHOR: Grinberg, A.A. (Academician); Babitskiy, B.D.; Bezhan, I.P.;
Varshavskiy, Yu.S.; Gel'fman, M.I.; Kiseleva, N.V.; Kormer, V.A.; Smolen-
skaya, D.B.; Chesnokova, N.N. 32
B

ORG: All-Union Scientific Research Institute for Synthetic Rubber im.
S.V. Lebedev (Vsesoyuzn y nauchno-issledovatel'skiy institut sintetiches-
kogo kaukuka); Institute of General and Inorganic Chemistry im. N.S.
Kurnakov of the AN SSSR (Institut obshchey i neorganicheskoy khimii AN
SSSR)

TITLE: The effect of the composition of rhodium(III) complexes⁷ on their
catalytic activity in the process of stereospecific polymerization⁷ of
butadiene-1,3 in an aqueous medium 44.56

SOURCE: AN SSSR. Doklady, v. 167, no. 1, 1966, 99-101

TOPIC TAGS: rhodium compound, polymerization catalyst, butadiene,
aqueous solution

ABSTRACT: The complexes to be investigated, synthesized by known meth-
ods, were analyzed for their rhodium and halide content. The polymeri-
zation was carried out by methods described in a previous article. A
table shows results of using fifteen different rhodium complexes as
catalysts in the polymerization of butadiene in an aqueous emulsion at
50 and 70°. It follows from these results that the gradual replacement
Card 1/2 UDC: 66.095.264:678.672:661.897

L 23110-66

ACC NR: AP6009488

of chlorine ions by ammonia molecules leads to a decrease in the polymerization rate. The catalytic activity of bromine derivatives also decreases with an increasing accumulation of ammonia molecules in the inner sphere of the complex. Comparison of the catalytic effect of the halides of rhodium shows that the chlorides and the bromides of rhodium have almost identical catalytic ability and stereospecificity. The iodide is inactive at 500, while in its presence at 700 there takes place a polymerization process of the free radical type. With the presence of three ammonia molecules in the inner sphere of the iodide the polymerization proceeds by a coordination-ionic mechanism. Results also show that the stereospecific polymerization of butadiene in the presence of the Rh^{3+} complexes studied leads to the formation of trans-1,4-polybutadiene, regardless of the number and nature of the bonds. Orig. art. has: 1 figure and 1 table.

SUB CODE: 07/ SUBM DATE: 12Jul65/ ORIG REF: 003/ OTH REF: 005

Card

2/2 1145

BABITSKY, B.L.

1211. Bond strength of tread and breaker rubber stocks under repeated deformation. I. A. LEXVIN, Yu G. KORABLEV, A. E. KORNEY, and B. L. BABITSKY. "Prochnost Shyazi" . . . , 1954, p. 73-83. (Yess. Khim. Obshch. im. D. I. Mendeleeva, Dec., 1954). Multi-ply cylindrical test-pieces with a diagonal joint, forming a tread-breaker-tread system, are tested on the MMS-1 machine, which subjects the test-piece to cyclic compression at high velocity with a constant initial load being applied also. The bond strength increases on treating the rubbers with the bonding agent, increasing the thickness of the breaker strip of natural rubber, and increasing the period of vulcanisation and the content (within certain limits) of sulphur and accelerators. The bond strength decreases when the period of plastication and of previous heating at 100°C are increased. The tread-rubber referred to is SKS-30A, the breaker rubber natural rubber or SKB-15.

11
2 May

Distr: 4B2a(1)

Jef

NAZAROV, I.N. [deceased]; CHERKASOVA, Ye.M.; KOSHELEV, F.F.; BABITSKIY,
B.L.; VINITSKIY, L.Ye.

Study of action of arylalkylaminopropanols and aminopropiophenones
as accelerators in rubber vulcanization. Khim.nauk i prom. 3 no.5:
678-679 '58. (MIRA 11:11)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M.V. Lo-
monosova i Nauchno-issledovatel'skiy institut khimicheskoy promyshlen-
nosti.

(Amino compounds)

(Vulcanization)

5(3),15(8)
AUTHORS:

Vinit'skiy, L. Ye., Epshteyn, V. G., Babitskiy, B. L.

SOV/156-59-2-39/48

TITLE:

Derivatives of the Ethanolamines as Accelerators in the
Vulcanization of Natural Rubber (Proizvodnyye etanolaminov kak
uskoriteli vulkanizatsii natural'nogo kauchuka)

PERIODICAL:

Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
tekhnologiya, 1959, Nr 2, pp 372-375 (USSR)

ABSTRACT:

Mono- and diethanolamine in various molecular proportions were brought into reaction with **phthalic anhydride**. In table 1 the probable chemical formulas, the molecular proportions, and the specific weights are shown for the obtained compounds "monoetal" (neutral **phthalic** salt of the monoethanolamine), "monokietal" (acidic salt of the same compound), "dietal" (neutral **phthalic** acidic salt of the diethanolamine) and "dikietal" (acidic salt of the same compound). The reaction of these compounds as accelerators for the vulcanization was investigated; the vulcanized products were tested with regard to their mechanical properties (Table 2, Figs 1-4). The values determined correspond to the standards, so that the diphenylguanidine, which at present is used as accelerator for the vulcanization and is short in supply, could easily be substituted by the

Card 1/2

Derivatives of the Ethanolamines as Accelerators in the SOV/156-59-2-39/48
Vulcanization of Natural Rubber

described substances. There are 2 figures, 4 tables, and
2 Soviet references.

PRESENTED BY: Kafedra khimii Vsesoyuznogo zaochnogo inzhenernostroitel'nogo
instituta (Chair of Chemistry, All-Union Correspondence-
Building Institute)

SUBMITTED: October 6, 1958

Card 2/2

5(3)

SOV/63-4-3-26/31

AUTHORS: Epshteyn, V.G., Babitskiy, B.L., Vinitskiy, L.Ye.

TITLE: The Accelerating Action of Ethanolamine Derivatives on the Process of Rubber Vulcanization

PERIODICAL: Khimicheskaya nauka i promyshlennost', 1959, Vol 4, Nr, 3
pp 410-411 (USSR)

ABSTRACT: Mono- and diethanolamines with mercaptobenzothiazol and phthalic anhydride as vulcanization activators are studied here. The derivatives of phthalic anhydride and ethanolamine are easily dissolved in water, but the activators of the composition: monoethanolamine-captax and diethanolamine-captax are decomposed by water. Monoethanolamine-captax is the most efficient activator; it is cheap and available in large quantities. The salts of the orthophthalic acid with mono- and diethanolamine are activators, the activity of which is increased in combination with captax. The mentioned activators may easily be prepared in every rubber plant.

Card 1/2 There are 2 graphs, 2 tables and 5 references, 4 of which are Soviet and 1 English.

SOV/63-4-3-26/31

The Accelerating Action of Ethanolamine Derivatives on the Process of Rubber Vulcanization

ASSOCIATION: Yaroslavskiy tekhnologicheskii institut (Yaroslavl' Technological Institute)

SUBMITTED: July 2, 1958

Card 2/2

S/081/62/000/005/111/112
B168/B101

15.9130
AUTHORS:

Babitskiy, B. L., Vinit'skiy, L. Ye., Epshteyn, V. G.

TITLE:

New vulcanization accelerators based on ethanolamine derivatives

PERIODICAL:

Referativnyy zhurnal. Khimiya, no. 5, 1962, 649, abstract
5P328 (Tr. Vseros. n.-i. khim. in-ta prom-sti mestn.
podchineniya, no. 10, 1960, 116-127)

TEXT: The production and properties of a number of vulcanization accelerators are described, namely salts of mono- and diethanolamines with mercaptobenzothiazol (I) and acid and neutral salts of these ethanolamines with orthophthalic acid (II). Monoethanolamine salts with I (III) and diethanolamine salts with I (IV) are more effective than I. With III and IV the time taken to attain optimum vulcanization is reduced by 30 % and the rubbers are 50 % stronger than standard rubber with I and are somewhat superior with regard to strength and specific elongation to rubbers with I + diphenylguanidine (V). III gives the rubber a better resistance to heat aging, while compounds with III are less subject to scorching than are

Card 1/2

New vulcanization accelerators...

S/081/62/000/005/111/112
B168/B101

compounds with a combination of I + V. Accelerators of type II are most effective in conjunction with I. Compounds with II are less subject to scorching, especially in comparison with those with I + V. All the above-mentioned accelerators are very cheap and readily available.
[Abstracter's note: Complete translation.]

Card 2/2

20866

15.9130

2209, 1474, 1451

S/138/61/000/003/006/006
A051/A129

AUTHORS: Babitskiy, B. L., and Vinitskiy, L. Ye.

TITLE: Water-soluble agents of the vulcanizing group of latex mixtures

PERIODICAL: Kauchuk i rezina, no. 3, 1961, 30-32

TEXT: The authors have attempted to produce a new, easily water-dispersible vulcanizing agent and water-soluble vulcanization activator in view of the fact that both zinc oxide and sulfur are poorly dispersible in an aqueous medium and the special pastes manufactured to prevent this drawback are not stable enough. The products of interaction of sulfur and commercial mono- and triethanolamines were tested as vulcanizing agents (L. Ye. Vinitskiy, B. L. Babitskiy, et al. - Ref. 4: Trudy NIKhIMP, no. 7, KOIZ, 1958). The products of monoethanolamine and sulfur proved to be very weak vulcanizing agents. Figure 1 shows the properties of the experimental latex films produced, containing triethanolamine sulfides. The zinc salts of oleic, stearic, acetic and sulfuric acids, as well as the zinc-ammonium complexes, were investigated as vulcanization activators of latex mixtures. The results of the physico-mechanical tests of the obtained films showed that zinc

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A 51/A129

Water-soluble agents of the...

oleate and stearate solutions in triethanolamine had a weak activating effect on latex vulcanization. Zinc acetate and zinc sulfate introduced into the latex mixture in the form of aqueous solutions proved to be effective activators of the vulcanization accelerators of natural latex. An important disadvantage of these solutions is the coagulating effect on the latex due to the acidic nature of the salts. The introduction into the latex of 34 - 49% ammonium solutions of zinc sulfate as an activator of vulcanization and containing zinc in the mixture within the limits of 0.40 - 0.65 w.p. to 100 w.p. of rubber substance of the latex leads to the formation of films exceeding in some cases the tear-resistance and elasticity of standard films. The results of the physico-mechanical tests of the latex systems containing instead of zinc oxide solutions of the zinc compounds tested are given in Figure 2. The investigated new ingredients of the vulcanizing group (zinc-ammonium complexes and triethanolamine sulfides) contain substances, which stabilize the latex ammonium and triethanolamine. Their application might need, therefore, correction of the composition and the technological conditions. The authors summarize by stating that the products of interaction of sulfur and triethanolamine obtained at 100°C are effective vulcanizing agents for latex mixtures easily dispersed in an aqueous-alkaline medium. The zinc-am-

Card 2/3
3

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A051/A129

Water-soluble agents of the...

monium complexes produced by the dissolution of zinc sulfate in aqueous ammonium as activators of vulcanization of latex mixtures yield vulcanizates corresponding to the standard ones in their mechanical properties. When replacing the sulfur in latex products by triethanolamine sulfides and zinc oxide by zinc-ammonium complexes the need to prepare a sulfur and zinc paste no longer exists. There are 2 graphs and 4 references: 3 Soviet, 1 English.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of Railroad Transportation)

Card 3/5

EPSHTEYN, V.G.; VINITSKIY, L.Ye.; BABITSKIY, B.L.

New rubber vulcanization accelerators based on ethanolamines
and mercaptobenzothiazole. Izv.vys.ucheb.zav.i khim.tekh. 4
no.5:872-874 '61. (P.L.A 14:11)

1. Yaroslavskiy tekhnologicheskii institut, kafedra tekhnologii
reziny. (Vulcanization) (Ethanol) (Benzothiazole)

BABITSKIY, B.L.; VINITSKIY, L.Ye

~~Water-soluble~~ agents of the vulcanizing group of later mixtures.
Kauch.i rez. 20 no.3:30-32 Mr '61. (MIRA 14:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo
transporta.

(Latex)

(Vulcanization)

S/138/62/000/012/006/010
A051/A126

AUTHORS: Babitskiy, B. L., Vinitskiy, L. Ye., Kaplunov, Ya. N.

TITLE: Dielectric properties of reclaimed rubber and its vulcanizates

PERIODICAL: Kauchuk i rezina, no. 12, 1962, 18 - 22

TEXT: Investigation results are submitted of the dielectric properties of reclaimed rubber and its vulcanizates. The possibilities for improving these properties are discussed. Reclaimed serial rubbers produced by reprocessing domestic tires were found to be superior to tire rubbers in their electro-insulating properties (GOST 6433-52). The specific volumetric electrical resistance of the reclaimed rubber is equal to that of the "pure" rubbers. The high electro-insulating properties of reclaimed rubber are also noted in its vulcanizates. The latter are inferior, however, in their electric spark-over resistance and the dielectric loss value. Both, filled and non-filled reclaimed vulcanizates are not inferior to electro-insulating "pure" rubbers in their mechanical characteristics, satisfying the GOST 2068-61 conditions for insulating rubber of electric cables, lines and cords. The electric tensility can be raised, while maintaining a high specific electrical resistance, by introducing a specially selected

Card 1/2

Dielectric properties of...

S/138/62/000/012/006/010
A051/A126

combination of carbon blacks and softeners. The high electric properties are explained by the large amounts of softener in the reclaimed rubber. The electrical resistance, on the other hand, depends also on the mutual relation of softener to carbon black dosage. Comparisons were made of the dielectric and mechanical properties of reclaimed rubbers produced by different reclaiming methods: water-neutral, thermo-mechanical, and dispersion. The initial protective rubber used was the CKC -30 APM -15 (SKS-30 ARM-15). With an increase in the degree of material destruction reached during the reclaiming process, the electrical tensility and resistance are increasing while the mechanical properties are dropping. The presence of a softener raises the dielectric properties, as it encases the filler particles, "separating" them and preventing the formation of current-conducting carbon black structures. It weakens inter-molecular interaction. Dielectric tests showed that, by selecting the appropriate composition, rubbers based on the reclaimed material can be produced with high electro-insulating properties. It is concluded that reclaimed rubbers of domestic serial tires are dielectrics, suitable for use in electro-insulating rubber (lines, cords, insulation, cables, footwear, etc.). There are 2 tables and 2 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta (All-Union Scientific Research Institute of Railway Transport)

Card 2/2

RABITSKIY, B.L., inzh.; VINITSKIY, L.Ye., inzh.; OVCHINNIKOV, B.D., inzh.

Need for reliable insulation rail bonds. Put' i put.khoz.
5 no.11:14-15 N '61. (MIRA 14:12)
(Railroads--Signaling--Block system)
(Electric insulators and insulation)

BABITSKIY, B.L., inzh.; VINITSKIY, L.Ye., kand.tekhn.nauk

Use of reclaimed rubber for the electric insulation of super-
structure parts. Vest.TSNII MPS 21 no.8:50-52 '62. (MIRA 16:1)
(Electric insulators and insulation)
(Rubber, Reclaimed)

BABITSKIY, B.L.; VINITSKIY, L.Ye.; KAPLUNOV, Ya.N.; Prinimali uchastiye:
VELLER, V.N.; SIZIKOV, N.N.; DYUBKO, L.D.; NIKOLAYENKO, A.F.;
DROZDOVSKIY, V.F.

Dielectric properties of reclaimed rubber and its vulcanizates.
Kauch.i rez. 21 no.12:18-22 D '62. (MIRA 16:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.

(Rubber, Reclaimed--Electric properties)

BABITSKIY, B.L.; ROZENFEL'D, M.D.; MORGAYEV, V.N.; STROCHKOV, A.A.

Insulation of the connected bands. Put' i put.khoz. 7 no.7:34
'63. (MIRA 16:10)

VINITSKIY, L.Ye.; BABITSKIY, B.L.; Primal uchastiye: MATUSEVICH, V.V.

Some characteristics of sound reflexion by shock absorber
rubbers. Kauch. i rez. 22 no.6:38-39 Je '63.

(MIRA 16:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta.

(Rubber goods—Acoustic properties)

OVCHINNIKOV, Boris Dmitriyevich; MOROZOVA, Tamara Viktorovna;
ROZENFELD, Mikhail Davydovich; BABITSKIY, Boris
Lazarevich; FILIPPOVA, L.S., red.; SOLOV'YEVA, T.P.,
red.

[Use of new polymeric materials in insulating rail joints
and switches] Primenenie novykh polimernykh materialov v
izoliruiushchikh stykakh i strelochnykh perevozhakh. Mo-
skva, Izd-vo "Transport," 1964. 25 p. (MIRA 17:9)

VIL'NITS, S.A.; BABITSKIY, B.L.

Results of the All-Union Scientific and Technical Conference on
the Reclaiming of Polymeric Materials in the National Economy.
Kauch. i rez. 24 no.2:53-54 F '65.

(MIRA 18:4)

BABITSKIY, B.L.; VINITSKIY, L.Ye.; DROZDOVSKIY, V.F.; DYUBKO, L.D.; KAPLUNOV, Ya.N.; MELENT'YEVA, Z.G.; SHOKHIN, I.A.; Prinsipali uchastiye:
ZHIL'TSOVA, A.A.; LEVIT, R.G.; YAKOVLEV, D.A.

Effect of filling reclaimed rubber on the dielectrical properties of the reclaimed product. Kauch. i rez. 24 no.5:22-25 My '65.

(MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zheleznodorozhnogo transporta i Nauchno-issledovatel'skiy institut shinnoy promyshlennosti.

Babitskiy, B. Ye.

3-10-20/30

AUTHORS: Malyshev, A.Ya., Ivashin, V.G., and Babitskiy, B.Ye., Dotsents

TITLE: Conference on Methods Used in Correspondence Courses (Metodicheskaya konferentsiya po zaachnomu obucheniyu)

PERIODICAL: Vestnik Vysshey Shkoly, 1957, # 10, 67-69 (USSR)

ABSTRACT: At the end of May of this year the first methodic conference on correspondence training took place at the Belorussian State University. General matters of correspondence training, the structure of lectures, the schedule of surveying and determining lectures were the subjects under discussion. It was decided that lectures must not exceed 6 hours daily. Works submitted in writing were unsatisfactory, owing to low requirements of teachers and the overburdening of students with such work. The author proposes to eliminate this written work from certain disciplines. The evaluation of the submitted works was stated to be unsatisfactory as some teachers limit their criticisms into a single phrase without any explanations. The methodics of diploma work, the selection of themes and the connection between student and teacher were dealt with.

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A Methodic Conference on Correspondence Training

3-10-20/30

The organization of consultations and lectures in various places, towns and districts was suggested, as well as the supplementing of the teaching staff.

ASSOCIATION: The Belorussian State University imeni V.I. Lenin (Belorusskiy gosudarstvennyy universitet imeni V.I. Lenina)

AVAILABLE: Library of Congress

Card 2/2

BABITSKIY, Boris Yevseyevich, dotsent; DAVIDOVICH, Aleksandr Mikhaylovich, starshiy nauchnyy sotr.; SAVITSKIY, F.I., red.; BELEN'KAYA, I.Ye., tekhn. red.

[Organization of the Supreme Economic Council and its local organs, 1917 - 1932] Organizatsiya Vysshego soveta narodnogo khoziaistva i ego mestnykh organov, 1917-1932; uchebnoe posobie. Minsk, Izd-vo Belgosuniv. im. V.I.Lenina, 1961. 58 p. (MIRA 15:1)

1. Institut gosudarstva i prava AN SSSR (for Davidovich). 2. Belorusskiy gosudarstvennyy universitet im. V.I.Lenina (for Babitskiy). (Russia—Economic policy)

KHMEI'NITSKIY, G.; BABI'NSKIY, D.; PERL'MAN, L.

Construction Industry - Accounting

Organization of calculations in construction, Sov. fin., 13, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

AGLADZE, R.I., BABITSKIY, G.B.

Atmospheric nitrogen fixation by means of electric discharges.

Trudy Inst. met. i gor. dela AN Gruz. SSR no. 8:223-250 '57.

(MIRA 11:8)

(Nitrogen--Fixation)

(Electric discharges through gases)

KHVICHIIYA, A.T.; SAMKHARADZE, S.G.; BABITSKIY, G.E.

Making silicomanganese from a single charge mixture on the
basis of a 4th-grade manganese ore. Trudy GPI [Gruz.] no.4:
33-38 1962 (MIRA 17:8)

MAKISHIL, G. R.

Transportation of full-length logs along highways; experience of enterprises of the Leningrad Timber Trust. Moskva, Goslestumisdat, 1952. 39 p.
(54-26681)

SD539.B3

UNSUBMITTED, G.M.

1. ORLOV, S. F.; KRYUCHKOV, G. YA., Enr.; BAKITSKIY, G. M.
2. USSR (600)
4. Lumbering - Machinery
7. Operation of felling and skidding machines, Mekh. trud. rab., 7, no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

BABITSKIY, G. M.
USSR/Miscellaneous-Production

Card 1/1

Authors : Babitskiy, G. M., Engineer

Title : Preparation of timber by the cyclic method at the Lenles Lumber enterprises

Periodical : Mekh. Trud. Rab., 2, 11 - 15, March 1954

Abstract : Described is the cyclic (round the clock) method of preparing timber introduced and practiced by several large timber cutting groups belonging to the Soviet Lenles trust. The area designated for timber felling is divided into smaller sections which in turn are worked in shifts (at night by the light of reflectors mounted on the tractors) in accordance with earlier prepared technological charts. The gains obtained by applying this cyclic method are described.

Institution : ...

Submitted : ...

BABITSKIY, G.M.

BABITSKIY, G.M.

Cyclic method of lumbering operations. Les.prom. 14 no.7:4-11
Jl '54. (MLRA 7:7)
(Lumbering)

BABITSKIY, G.M., inzhener

Experience with skidding untopped trees. Mekh.trud.rab.10 no.7:5-8
Jl 156. . . (Lumbering) (MLRA 9:9)

BABITSKIY, G.M., inzhener.

New technology in logging camps of the Lenles trust. Mekh.trud.
rab. 11 no.3:15-18 Mr '57. (MLRA 10:5)

1.Trest Lenles.

(Lumbering--Machinery)

28(1)

SOV/118-59-4-11/25

AUTHOR: Babitskiy, G.M., Engineer

TITLE: The Experience in Mechanizing Operations at Enterprises of the "Lenles" Trust

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, 1959, Nr 4, pp 32-34 (USSR)

ABSTRACT: The enterprises of the "Lenles" Trust are widely using advanced methods of loading big packs of topped crowns on rolling stock. At the Lodeynopol'skiy (Lodeynoye Pole) lespromkhoz, dug-in sloping masts with pulleys attached are used for loading crown packs, a tractor being used for power. At the Oyatskiy (Oyat') lespromkhoz growing trees are used instead of dug-in masts. The Kingiseppskiy (Kingisepp) lespromkhoz has introduced motor transport for taking out lumber, and big-package loading is accomplished by means of trailing winches type "TL-4". The Giprolestrans has developed a tractor mounted crane, type "TDT-40", with 2 winches for load and crane arm lifting. Two experimental models,

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The Experience in Mechanizing Operations at Enterprises of the
"Lenles" Trust

tested at the Lodeynoye Pole Lespromkhoz, proved superior to truck or K-7 tractor mounted cranes. At the Kapshinskiy (Kapsha) lespromkhoz, excavator-cranes type "E-505" have been used successfully for more than 3 years for unloading and stacking operations. The E-505 crane unloads from 12 to 13 cu m of lumber within 20 minutes or from 200 to 250 cu m per shift. The "Lenles" Trust has paid much attention to the technological improvement of operations and to the mechanization of lumber loading, especially the loading of short assortments into standard gage railway cars, using the UZhKP-1.5 and PK-6 cranes, elevator type loaders, electric winches, section conveyers and truck mounted loaders. Thus, the degree of mechanization has risen by 25 to 56% and, in certain lespromkhozes, such as the Dubovitskiy (Dubovik) and Podborovski (Podborov'ye), up to 90-95%. Based on experience gained at the Krestetskiy (Kresttsy) lespromkhoz, the Dubovik Lespromkhoz connected a

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The Experience in Mechanizing Operations at Enterprises of the
"Lenles" Trust

section of the B-22 chain conveyer with 2 sections of the B-19 conveyer, thus forming a conveyer line 255 m in length. In 1958, the Dubovik Lespromkhoz produced 12,400 cu m of crating boards from low quality wood. Production per worker at the Dubovik Lespromkhoz amounted to 575 cu m in 1958. Due to the gasification of Leningrad's industry, the need for wood has sharply decreased. Therefore, the production of crating boards has been intensified by the enterprises of the "Lenles" Trust. There are 3 diagrams.

Card 3/3

BABITSKIY, G.S.

Embryonic adenocarcinoma of the kidney (Wilms' tumor) in an
adult. Zdrav.Bel. no.3:61-62 '62. (MIRA 15:5)

1. Iz kafedry yrologii (zaveduyushchiy - professor A.I. Mikhel'-
son) Belorusskogo instituta usovershenstvovaniya vrachey.
(KIDNEYS--CANCER)

BABITSKIY, G.S.

Clinical significance of congenital valves of the ureter.

Urologiia no.6:61-62 N-D '63.

(MIRA 17:9)

1. Iz urologicheskoy kliniki (zav.- prof. A.I. Mikhel'son)
Belorusskogo instituta usovershenstvovaniya vrachey na baze
Minskoy oblastnoy klinicheskoy bol'nitsy.

BABITSKIY, G.S.

Acute peritonitis following internal urethrotomy. Zdrav. Bel. 9
no.6:78-79 Je '63. (MIRA 17:5)

1. Iz kafedry urologii (nastavnyashchiy kafedroy - prof. A.I.
Mikhel'son) Belorusskogo instituta usovershenstvovaniya vrachev
i Minskoy oblastnoy bol'nitsy (glavnyy vrach - M.I. Kotovich).

~~BABITSKIY~~, Iosif Aronovich [deceased]; LEZHNERSON, V.K., otvetstvennyy
redaktor; DOBRYNINA, A.Ya., redaktor; LEDNEVA, N.V., tekhnicheskoy
redaktor

[Calculation of multiswitches for automatic telephone stations]
K raschetu stupenchatogo vklucheniia na ATS. Moskva, Gos. izd-vo
po voprosam sviazi i radio, 1956. 28 p. (MLA 10:1)
(Telephone, Automatic)

VIKHMEN, Yu.L.; BABITSKIY, I.F.; VOL'FSON, S.I.; YERSHOV, P.R., vedushchiy
redaktor; POLOSINA, A.S., tekhnicheskiiy redaktor

[Calculation and design of petroleum refining apparatus] Raschet i
konstruirovaniye neftezavodskoi apparatury. Moskva, Gos. nauchno-
tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1953. 650 p.
(MIRA 9:8)

(Petroleum--Refining)

BABITSKIY, Il'ya Filippovich; VIKHMAN, Georgiy L'vovich;
VOL'FSON, Samuil Iosifovich; KORSUN, Ye.P., ved. red.

[Designing and constructing the apparatus of petroleum
refineries] Raschet i konstruirovaniye apparatury nefte-
pererabatyvaiushchikh zavodov. 2. perer. i dop. izd.
Moskva, Nedra, 1965. 903 p. (MIRA 18:2)

BAHITSKIY, K. I.

PHASE I BOOK EXPLOITATION

15
807/6100

Akademiya nauk SSSR. Institut tochnoy mekhaniki i vychislitel'noy tekhniki.

Trudy (Academy of Sciences of the USSR, Institute of Precision Mechanics and Computer Technology. Transactions) no. 2. Moscow, 1961. 447 p. 1000 copies printed. Contributors not mentioned.

PURPOSE: This collection of articles is intended for scientific and technical personnel concerned with machine translation and computer technology.

COVERAGE: This collection of articles of the Institute of Precision Mechanics and Computer Technology, Academy of Sciences USSR, is the second in a series concerned with machine translation and mathematical linguistics. The collection contains reports written by members of the Machine-Translation Group of the Institute as well as reports by researchers from other organizations. The articles deal with various problems in machine translation, such as the possibility of an intermediate language, relationships between various languages, systems of recording, structure of

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Academy of Sciences (Cont.)

algorithms, methods of independent analysis of a number of languages (Chinese, German, English, Russian, Rumanian, Swedish, Tartar, etc.), independent synthesis of the Russian language, some problems of binary Japanese-Russian and Chinese-Russian translation, theoretical translation problems, and problems associated with automatic recognition of speech elements and the introduction of written texts. No personalities are mentioned. There are 11 references: 2 Soviet and 9 English.

TABLE OF CONTENTS:

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2. Belokrinitskaya, S. S., G. A. Volchek, M. B. Yefimov, A. A. Zvonov, T. M. Nikolayeva, and G. A. Tarasova. One of the Possible Approaches to the Building-Up of a Vocabulary for an Intermediate Language. 5
3. Zholkovskiy, A. K., N. N. Leont'yeva, and Yu. S. Martynov. On the Fundamental Use of Meaning in Machine Translation. 17

Card 2/6

Academy of Sciences (Cont.)

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18. Dreyzin, F. Table of Tartaric-Russian Equivalents

304

[19. Missing]

20. Nikolayeva, T. M. Construction of a Sentence for Independent Synthesis of a Russian Text

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21. Babitskiy, K. I. Algorithm of the Arrangement of Words in a Phrase for Independent Russian Synthesis

323

22. Yefimov, M. B. Basic Characteristics of a Japanese-Russian Dictionary for Machine Translation

338

23. Zvonov, A. A. Analysis of "Frame Constructions" in Binary Machine Translation From Chinese into Russian

349

24. Zvonov, A. A. Analysis of Auxiliary Words in Binary Machine Translation from Chinese into Russian

358

25. Ivanov, V. V. Linguistic Problems of Poetic Translation

371

Card 5/6

BABITSKIY, K.I.

Syntactical synonymy of sentences in natural languages.

NTI no.6:29-34 '65.

(MIRA 18:9)

ZELICHENOK, B.Yu., inzh.; BABITSKIY, M.S., inzh.; VARNAVSKIY, I.N., inzh.;
KOVYNEV, M.V., inzh.; MEDVEDEV, V.V., inzh.; ZASLAVSKIY, A.Ya.,
inzh.

Influence of cross rolling on the quality of 16GN and 17GS steel
sheets. Stal' 25 no.8:825-828 S '65. (MIRA 18:9)

1. Orsko-Khalilovskiy metallurgicheskiy kombinat i Chelyabinskiy
nauchno-issledovatel'skiy institut metallurgii.

110-58-5-21/25

AUTHORS: Bonch-Osmolovskiy, M.A., Candidate of Technical Sciences
and Babitskiy, O.Sh., Engineer

TITLE: Efficient Selection of Braiding Equipment (Ratsional'nyy
vybor opletochnogo oborudovaniya)

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, Vol 29, Nr 5,
pp 62-67 (USSR)

ABSTRACT: This article compares braiding machines in respect
of their method of operation and their running costs.
Braiding machines are classified into three main types: spindle
machines, roundabout machines and knitting machines. The
principles of the different machines are explained and Soviet
and foreign types of each are named. The data on knitting
machines are taken from foreign sources. Two main factors
that govern the quality of braiding are constancy of thread
tension and the dynamic factor. This latter is the product
of the mass of those parts of the machine which move non-
uniformly and their acceleration. The characteristics of the
different types of the machines in respect of these two
characteristics are discussed. Figures for the angular
velocity of braiding machines are given in Table 1. A tech-
Card 1/2 nical and economic analysis is then made of the main types of

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The ⁷⁴Efficient Selection of Braiding Equipment

machine and Table 2 gives the results of an analysis of production costs. It is concluded that compared with spindle machines roundabout machines are better, and show a cost of production of about a third. Contrary to the usual opinion, repair costs of spindle machines are very high. Knitting machines are then described and their principles of operation explained with reference to Figures 3 and 4. Knitting machines are apparently widely used abroad in various forms which are described. The advantages of knitting machines are summarised and it is concluded that they should be introduced into Soviet factories. Finally, the recommendations about selection of different types of machines for different kinds of work are recapitulated. There are 6 figures, 2 tables and 3 references, 1 of which is Soviet and 2 English.

ASSOCIATIONS: MEI and NIIKP

SUBMITTED: April 23, 1957

Card 2/2

LAKERNIK, Rafail Moiseyevich; MACHERET, Lev Il'ich; PRIVEZENTSEV,
Vladimir Alekseyevich; SHARLE, David Leonidovich; Primal
uchastiy. BABITSKIY, O.Sh.; SAPAROVA, A.L., red.; BORUNOV,
N.I., tekhn. red.

[Cables and wires] Kabeli i provoda. [By] R.M.Lakernik i dr.
Moskva, Gos. energ. izd-vo. Vol.2. [Manufacture of cables with
paper insulation] Proizvodstvo kabelei s bumazhnoi izoliatsiei.
1962. 526 p. (MIRA 15:4)

(Electric cables)

BABITSKIY, P. A.

Pyrometers and Pyrometry

Mistakes in measuring temperature with thermoelectric pyrometers, Sakh. prom., 26, No. 5, 1952

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

BABITSKIY, V.I., kand. tekhn. nauk

Problems of the dynamics of vibratory percussion systems;
symposium in Moscow. Vest. AN SSSR 35 no.4:99 Ap '65.

(MIRA 18:6)

39807

S/179/62/000/003/007/015

E191/E435

26.4210

AUTHORS: Babitskiy, V.I., Kobrinskiy, A.Ye. (Moscow)

TITLE: An electromagnetic damper

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye
tekhnicheskikh nauk. Mekhanika i mashinostroyeniye,
no.3, 1962, 81-84

TEXT: A new method of dynamic vibration attenuation is proposed, based on the utilization of controlled electromagnetic interaction between the system to be damped and the vibration-absorbing element. The ordinary dynamic vibration absorber is distinguished by a critical sensitivity to the frequency of the exciting force. Nonlinear suspension of the dynamic vibration absorber reduces the sharpness of its tuning, but a broad frequency range cannot be achieved in this way quite apart from the difficulties in designing special nonlinear elements. Several configurations of electromagnetic assistance to the damping effect of the vibration absorber are illustrated. In all cases, the dynamic absorber mass is made in the form of a spool shaped core of magnetic material with a central neck. The core
Card 1/3

An electromagnetic damper

S/179/62/000/003/007/015
E191/E435

is free to move axially in the central hole of a pot electromagnet containing a coil placed in the recess of a ring of magnetic material having a channel section. In scheme A the core is linked to the main vibrating mass by a spring and the electromagnet is rigidly mounted ("earthed"). In scheme B the core is rigidly attached to the mass and the electromagnet is connected to earth by a spring. In scheme C the core is rigidly attached to the mass, and the electromagnet is free floating. In scheme D the core is rigidly attached to the mass and the electromagnet is attached to the same mass by a spring. The motion of these systems is described on the assumption that the current in the coil is constant. The electromagnetic effect is introduced by way of an equivalent elastic constraint depending on the design of the electromagnet and the magnitude of the coil current. Current control is an easy means of obtaining the desired attenuation in a wide frequency range. The amplitudes for the different schemes are formulated and the method of computing the equivalent stiffness is given. Numerical examples illustrate how the amplitude of oscillations can be limited at

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An electromagnetic damper

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any desired value of the exciting frequency by appropriate
electromagnetic control. There are 7 figures.

SUBMITTED: February 15, 1962

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AFONIN, A.P.; BABITSKIY, V.I.; BORISOV, D.S.; KOBRINSKIY, A.Ye.;
KOZHIN, V.D.; SAKAYAN, A.R.

Experimental investigation of the dynamics of an electric
step-by-step motor. Teor. mash. i mekh. no.94/95:127-141
'63. (MIRA 16:11)

BABITSKIY, V.I.; KOBRINSKIY, A.Ye.

- Periodical movements of a two-component vibrating system in a hollow. Teor. mash. i mekh. no.103/104:56-70 '64. (MIRA 17:11)

KOBRINSKIY, Aron Yefimovich; RABITSKIY, V.I., red.

[Mechanisms with flexible connectors; dynamics and stability]
Mekhanizmy s uprugimi svyaziami; dinamika i ustoichivost'. Mo-
skva, "Nauka," 1964. 390 p. (MIRA 17:4)

I 00793-67 EWT(1)/EWP(m)/ENT(m)/IWP(w) IJP(c) WW/EM
ACC 14R: AR6000702 SOURCE CODE: UR/0124/65/000/009/A014/A014

AUTHOR: Babitskiy, V. I. 40

TITLE: Calculation of vibro-shock modes of a pendulum with inertial suspension placed in a vibrating cavity

SOURCE: Ref. zh. Mekhanika, Abs. 9A121

REF SOURCE: Sb. Analiz i sintez mashin-avtomatov. M., Nauka, 1965, 20-30

TOPIC TAGS: shock propagation, dynamics, pendulum motion, vibration.

ABSTRACT: In the paper calculations are made of the boundaries of regions in the space of parameters of a two-mass system with clearance, which defines periodic vibro-shock modes. The dynamic model of the system consists of a cavity performing harmonic vibrations according to the law $x_1 = a \cos \omega t$, a suspension with mass m_2 placed in the cavity with a clearance $2r$, and a pendulum of mass m_3 attached to the suspension by a spring with linear characteristics and elasticity coefficient k and by a viscous damper with a coefficient proportional to c . On the basis of an electronic computer investigation of the dynamics of the system, regions are constructed for the existence of periodic vibro-shock modes. The stability analysis of the resulting periodic modes relative to small perturbations is fulfilled by means of an adaptation utilizing a finite difference method. Selected regions of

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L 00793-67

ACC NR: AR6000702

the stable modes within the region, where periodic modes exist, are also produced on an electronic computer. I. M. Aronson [Translation of abstract] 0

SUB CODE: 20

Card 2/2 mjs

BABITSKIY, V.I.; KOBRINSKIY, A.Ye.; ROMANOV, V.D.

Areas of the occurrence and stability of vibratory-percussive conditions for a two-mass vibrating system in a hollow. Teor. mash.i mekh. no.105/106:103-111 '65.

(MIRA 18:4)

BABITSKIY, V.I.; BRUNSHTEYN, R.Ye.; KOBRINSKIY, A.Ye.

Dynamics and stability of elastic systems with backlash. Teor.
mash.i mekh. no.105/106:122-134 '65.

(MIRA 18:4)

I 6978-66 EWT(m)/ETC(m)/EWP(m) EM/WW ACC NR: AP6001037	SOURCE CODE: UR/0380/65/000/002/0128/0128
AUTHOR: <u>Babitskiy, V. I. (Moscow)</u>	36 35 B
ORG: none	
TITLE: Symposium on the dynamics of shock-vibration systems	
SOURCE: Mashinovedeniye, no. 2, 1965, 128	
TOPIC TAGS: mechanical engineering, mechanical engineering conference, machine vibration	
ABSTRACT: The article reports on the proceedings at the Symposium on the Dynamics of Shock-Vibration Systems held on 22 December 1964 in Moscow under the auspices of the Institute of Machine Science at the State Committee on Machine Design, Gosplan USSR, and of the Academy of Sciences USSR. This symposium was convened by recommendation of the Scientific Council for Machine Theory, and about 150 scientists, engineers representing over 50 institutions and societies from the Moscow, Leningrad and Gor'kiy regions participated. Six comprehensive papers were presented and discussed dealing with the theoretical and experimental study of systems set in motion by impacts. Concerning the technical aspects of shock-vibration phenomena, much attention was devoted to the effectiveness of shock-damping of vibrations and to the utilization of this method in various types of structures ranging	
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1 6978-66

ACC NR: AP6001037

from airplanes to towers. Some undesirable aspects of shock condition in the performance of shaft bearings were also mentioned. The papers dealing with the theoretical analysis of shock-vibration systems dealt primarily with the feasibility of a uniform approach, namely with the geometric interpretation by the point mapping method. The application of analog and digital computers was emphasized, results of some dynamic model studies were presented, and the importance of shock-vibration systems to the theory of non-linear vibrations was discussed. At the conclusion of the meeting, a unanimous resolution was passed suggesting periodic conferences on these subjects in the future. [JPRS]

SUB CODE: 13 / SUBM DATE: none

Card 2/2 *ndo*

ACC NR: AP6016304 (A) SOURCE CODE: UR/0380/66/000/001/0022/0026

AUTHOR: Babitskiy, V. I. (Moscow)

ORG: none

TITLE: The existence of ^{2/}high frequency vibrations of large amplitude in linear systems with restraints

SOURCE: Mashinovedeniye, no. 1, 1966, 22-26

TOPIC TAGS: vibration analysis, high frequency

ABSTRACT: The article considers vibration shock conditions in linear vibrational systems with rigid restraints. A dynamic model of the system under consideration is shown in Fig. 1.

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UDC: 621.002.5

ACC NR: AP6016304

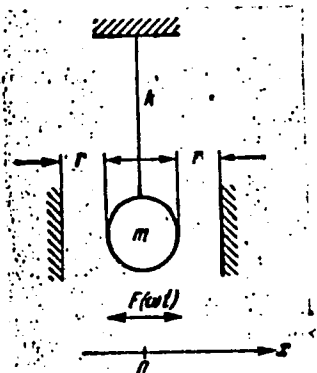


Figure 1.

The mass m is attached to an immovable base by an elastic element which has a linear characteristic with the coefficient k . The motion is limited by rigid supports which are equally distant from the static equilibrium position by a distance r . The mass is acted upon by a harmonic force with a frequency and an amplitude F . To take account of the energy loss, it is assumed that the system is placed in a viscous medium with a damping coefficient c . It is natural that in this system there will be periodic motions without contact with the restraints. These motions are described by the linear differential equation:

$$m\ddot{x} + c\dot{x} + kx = F \cos \omega t, \quad (1)$$

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ACC NR: AP6016304

the periodic solution of which can be written in the dimensionless form in the following manner:

$$x = \frac{1}{\sigma} \cos(\tau + \varphi), \quad (2)$$

where

$$\frac{1}{\sigma} = \frac{\Phi}{\sqrt{\left(1 - \frac{1}{\zeta^2}\right)^2 + 4\frac{\eta^2}{\zeta^2}}}, \quad \lg \varphi = \frac{2\eta}{\zeta\left(1 - \frac{1}{\zeta^2}\right)}$$

$$\text{Здесь } x = \frac{x}{r}, \quad \Phi = \frac{F}{rk}, \quad \zeta = \frac{p}{\omega}, \quad \eta = \frac{n}{p}, \quad p = \sqrt{\frac{k}{m}},$$

$$n = \frac{c}{2m}, \quad \tau = \omega t.$$

Solution of Equation (2) will satisfy the system under consideration if

1. Mathematical solution of the problem demonstrates that the presence of rigid restraints brings about the danger of the appearance of vibrations of large amplitude in systems with a perturbation frequency considerably exceeding the resonance frequency of the damped system.

"The author thanks A. Ye. Kobrinskiy for his constructive discussion of the work." Orig. art. has: 7 formulas and 4 figures.

SUB CODE: 20/ SUBM DATE: 24Sep65/ ORIG REF: 003

Card 3/3

BABITSKIY, Ye.L.

Oxygen therapy in gastric and duodenal ulcer. Vrach. delo no.8:
132 Ag '60. (MIRA 13:9)

1. Shepetovskaya zheleznodorozhnaya bol'nitsa.
(PEPTIC ULCER) (OXYGEN--THERAPEUTIC USE)

BABITSKIY, Ye.L.

Use of segmental oxygen therapy in some cardiovascular diseases.
Vrach. delo no.9:125-126 S '61. (MIRA 14:12)

1. Shepetovskaya zheleznodorozhnaya bol'ni'tsa.
(CARDIOVASCULAR SYSTEM--DISEASES) (OXYGEN--THERAPY)

BABITSKIY, Ye.L.

Apparatus for subcutaneous administration of oxygen. Sov.
med. 25 no.4:124 Ap '62. (MIRA 15:6)

1. Iz terapevticheskogo otdeleniya zheleznodorozhnoy
bol'nitsy stantsii Shepetovka Yugo-Zapadnoy zheleznoy
dorogi (nachal'nik bol'nitsy I.A. Panasyuk).
(OXYGEN THERAPY--EQUIPMENT AND SUPPLIES)

BABITSKIY, Ye.L.

Treatment of neurocirculatory asthenia. Ter. arkh. 35 no.4:
25-28 Ap'63 (MIRA 17:1)

1. Iz zheleznodorozhnoy bol'nitsy (nachal'nik I.A. Panasyuk)
stantsii Shepetovka Yugo-Zapadnoy zheleznoy dorogi.

BABITSKIY, Ye.L. (Shepetovka)

Some symptoms of chronic gastritis and peptic ulcers. Vrach.
delo no.1:133-134 Ja'64 (MIRA 17:3)

1. Terapevticheskoye otdeleniye zhelezmodorozhnoy bol'nitsy
stantsii Shepetovka.

ACC NR: AP7008525

SOURCE CODE: UR/0363/67/003/002/0311/0314

AUTHOR: Nikitina, V. K.; Babitsyna, A. A.; Lobanova, Yu. K.

ORG: Institute of General and Inorganic Chemistry im. N. S. Kurnakov, Academy of Sciences, SSSR (Institut obshchey i neorganicheskoy khimii Akademii nauk SSSR)

TITLE: Reaction of indium antimonide with AuIn_2

SOURCE: AN SSSR. Izvestiya. Neorganicheskoye materialy, v. 3, no. 2, 1967, 311-314

TOPIC TAGS: indium compound, antimonide, gold compound, alloy phase diagram

ABSTRACT: Since, to the authors' knowledge, no one has ever studied the reaction of compounds having a sphalerite-type lattice with fluorite-type compounds, they undertook a study of the quasi-binary section $\text{InSb} - \text{AuIn}_2$ of the ternary system indium - antimony - gold, using differential thermal analysis (heating curves) and microstructural and x-ray phase analyses. The samples were prepared by zone leveling. A diagram of the quasi-binary section is shown in Fig. 1. A region of solid solutions from pure indium antimonide to an alloy with 10 mole % AuIn_2 was obtained by zone leveling. Solid solutions with AuIn_2 as the base were obtained by adding 5 mole % of InSb . It is thus shown that it is fundamentally possible to obtain solid solutions by reacting compounds with sphalerite and fluorite lattices. Orig. art. has: 3 figures and 2 tables.

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UDC: 546.682'861+546.59'682